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AGE OF GAINFUL WORKERS OF THE UNITED STATES, 1920 AND 1930 [1]

Studies on the Age of Gainful Workers No. 1

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INTRODUCTION

During the past quarter century increasing interest has been manifested in problems involving the age of the gainful worker. More recently questions have arisen that demand for their study the age of the gainful worker specific for occupation. Such questions include, among others, those dealing with child and woman labor, old-age dependency and pensions, occupational morbidity and mortality, unemployment, unemployment insurance, and workmen's compensation for nonaccidental and accidental injuries.

The term *gainful worker* includes, according to the Bureau of the Census (*1*), "* * * all persons 10 years old and over who usually follow a gainful occupation even though they may not have been actually employed at the time the census was taken. It does not include women doing housework in their own homes without wages and having no other employment, nor children working at home, merely on general household work, on chores, or at odd times on other work."

With the aid of basic data contained in published volumes of the Bureau of the Census, it is purposed in this introductory paper to investigate the age composition of gainful male and female workers in 9 important groups of occupations for the years 1920 and 1930. In the present inquiry the data for the white and colored workers are combined. It is planned in subsequent papers to study for the same census years the age composition of male and female workers in different geographic regions, the age composition of white and Negro workers by sex, and the age composition of male and female workers in specific occupations of two or three occupational groups. Studies such as these are essentially introductory to similar ones of the future and obviously necessary for a better understanding of the facts that will be disclosed by them.

[1] From the Office of Industrial Hygiene and Sanitation, U. S. Public Health Service, Washington, D. C.

TABLE 1.—*Gainful workers in the United States, 10 years of age and over, in different occupational groups, 1920 and 1930*

Occupational group	Both sexes		Males		Females	
	1920	1930	1920	1930	1920	1930
	Number					
All groups	41,614,248	48,829,920	33,064,737	38,077,804	8,549,511	10,752,116
Agriculture, forestry, animal husbandry	10,953,158	10,722,467	9,869,030	9,812,199	1,084,128	910,268
Extraction of minerals	1,090,223	984,323	1,087,359	983,564	2,864	759
Manufacturing and mechanical industries	12,818,524	14,110,652	10,888,183	12,224,345	1,930,341	1,886,307
Transportation and communication	3,063,582	3,843,147	2,850,528	3,561,943	213,054	281,204
Trade	4,242,979	6,081,467	3,575,187	5,118,787	667,792	962,680
Public service (n. e. c.)[1]	770,460	856,205	748,606	838,622	21,794	17,583
Professional service	2,143,889	3,253,884	1,127,391	1,727,650	1,016,498	1,526,234
Domestic and personal service	3,404,892	4,952,451	1,217,968	1,772,200	2,186,924	3,180,251
Clerical occupations	3,126,541	4,025,324	1,700,425	2,038,494	1,426,116	1,986,830
	Percent					
All groups	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture, forestry, animal husbandry	26.3	22.0	29.9	25.8	12.7	8.5
Extraction of minerals	2.6	2.0	3.3	2.6	(2)	(2)
Manufacturing and mechanical industries	30.8	28.9	32.9	32.1	22.6	17.5
Transportation and communication	7.4	7.9	8.6	9.4	2.5	2.6
Trade	10.2	12.5	10.8	13.4	7.8	8.9
Public service (n. e. c.)[1]	1.8	1.7	2.3	2.2	.2	.2
Professional service	5.2	6.7	3.4	4.5	11.9	14.2
Domestic and personal service	8.2	10.1	3.7	4.7	25.6	29.6
Clerical occupations	7.5	8.2	5.1	5.3	16.7	18.5

[1] N. e. c.=Not elsewhere classified.
[2] Less than 0.1 of 1 percent.

GAINFUL WORKERS IN DIFFERENT OCCUPATIONAL GROUPS

Table 1 shows the gainful workers of both sexes distributed among 9 important groups of occupations for 1920 and 1930, respectively. It will be observed that, when sex is disregarded, the order of the groups of occupations with respect to the percentage of workers in each group remains unchanged with the passage of 10 years. There is a sensible decrease, however, in the percentage of persons in agriculture, forestry, and animal husbandry, and an increase in trade, and domestic and personal service. The orders of the occupational groups for males and females, respectively, are different from each other and different from the order shown for both sexes. For the males, the order is the same at the beginning and end of the decade, while for the females the corresponding orders are different from each other. The orders for the males for 1920 and 1930, respectively, differ from the order for both sexes in that the transportation and communication group and the domestic and personal service group replace each other. The orders for the females at the beginning and end of the

decade are remarkably different, only 4 of the 9 occupational groups being undisturbed. Domestic and personal service ranks first at the beginning and end of the decade; clerical occupations rank second in 1930, replacing the occupations of manufacturing and mechanical industries. In each sex group there is a perceptible decrease in agriculture, forestry and animal husbandry, and for the males a larger increase in trade than for the females. With respect to the female group, the following changes that occurred during the decade are worthy of noting: In addition to the decrease in agriculture, forestry and animal husbandry, already referred to, there was a decrease in the percentage of females engaged in the manufacturing and mechanical industries, and an increase in both the professional and the domestic and personal services groups.

GAINFUL WORKERS IN DIFFERENT OCCUPATIONAL GROUPS BY AGE

The sex-age distribution of the gainful workers of 1920 and 1930, according to all occupational groups and for particular groups, respectively, is shown in table 2. Regardless of occupation it is observed that the order of importance of the different age groups is by no means the same for the males and females of the same year nor for the males and females, respectively, of different years. In fact, only the age group 25 to 44 years has the same rank when the percentages for the various ages, specific for sex and year, are arranged in decreasing order of magnitude, and this particular age group ranks first. More precisely, in 1920 almost one-half of the male workers and approximately 40 percent of the female workers, respectively, were between the ages of 25 and 45 years. In 1930 the same age group was represented by practically the same percentage of male workers, and by a slightly higher percentage of females.

With respect, further, to the gainful workers in all occupational groups, the table shows that for the males the second highest percentage represented the middle-aged group, 45 to 64 years, the percentage being about the same for both 1920 and 1930, namely, 26 percent. For the females, on the other hand, the middle-aged group ranked third in both years, with 16 percent in 1920 and 18 percent higher in 1930. Of equal interest is the proportion yielded by the age group 10 to 17 years. In 1920 this child group, both male and female, ranked fourth, the percentage for females (11 percent), however, being twice that for the males. In 1930 this ratio remained unchanged, but the male child group dropped to last (6th) place, with less than 4 percent, while the corresponding female group moved to fifth place, with 7 percent. It is of interest to observe that the male child group of 1920, holding at that time fourth place, was supplanted at the end of 10 years by the age group 65 and over, the percentages in both instances being the same (5 percent); the place of the female

TABLE 2.—*Sex-age distribution of gainful workers, by occupational group, 1920 and 1930*

Occupational group	1920							1930						
	Age group							Age group						
	10 years old and over [1]	10–17	18–19	20–24	25–44	45–64	65 and over	10 years old and over [1]	10–17	18–19	20–24	25–44	45–64	65 and over
	Number	Percent						Number	Percent					
	Both sexes							Both sexes						
All groups	41,541,526	6.676	5.407	14.276	45.730	23.843	4.068	48,785,489	4.399	5.211	14.650	45.758	25.462	4.520
Agriculture, forestry, animal husbandry	10,942,669	10.283	4.835	11.564	39.325	27.446	6.547	10,717,037	9.172	5.659	12.161	35.917	29.245	7.846
Extraction of minerals	1,086,715	4.638	4.999	13.290	53.243	21.767	2.063	983,723	1.992	4.144	13.249	51.538	25.581	2.496
Manufacturing and mechanical industries	12,795,029	6.040	5.391	13.900	48.391	23.107	3.171	14,097,429	3.307	4.992	13.858	48.294	25.871	3.678
Transportation and communication	3,055,920	3.511	5.244	15.545	51.283	21.892	2.525	3,839,399	1.955	4.133	15.045	52.952	23.303	2.612
Trade	4,236,212	4.675	4.059	12.072	49.353	26.255	3.586	6,076,084	3.094	4.011	12.024	49.782	27.012	4.077
Public service (n. e. c.) [2]	767,640	1.571	6.714	15.354	41.502	28.621	6.238	855,486	.555	2.472	10.213	45.722	32.921	8.117
Professional service	2,138,948	.967	4.079	18.956	51.267	21.478	3.253	3,249,414	.859	3.341	18.737	50.828	22.749	3.486
Domestic and personal service	3,395,378	4.905	4.467	12.221	46.419	27.281	4.707	4,944,804	4.233	5.365	13.653	45.079	26.958	4.712
Clerical occupations	3,123,015	10.260	11.220	26.172	40.805	10.298	1.245	4,022,078	4.281	9.791	26.858	45.486	12.161	1.423
	Males							Males						
All groups	33,007,662	5.507	4.374	12.486	47.200	25.910	4.523	38,046,775	3.746	4.205	12.615	46.724	27.615	5.095
Agriculture, forestry, animal husbandry	9,859,639	8.679	4.641	11.508	40.226	28.231	6.715	9,807,239	7.989	5.491	12.139	36.578	29.786	8.017
Extraction of minerals	1,083,860	4.609	4.984	13.278	53.279	21.787	2.063	982,971	1.984	4.137	13.244	51.551	26.588	2.496
Manufacturing and mechanical industries	10,867,341	4.330	4.375	12.844	50.255	24.712	3.484	12,212,971	2.204	3.964	12.748	49.681	27.449	3.954
Transportation and communication	2,843,088	2.694	4.231	14.222	52.897	23.261	2.695	3,558,429	1.607	3.299	13.736	53.968	24.610	2.780
Trade	3,569,586	3.610	2.920	10.434	50.399	28.589	4.048	5,114,555	2.700	3.102	10.734	50.595	28.335	4.534
Public service (n. e. c.) [2]	745,904	1.598	6.836	15.408	41.090	28.711	6.357	837,938	.559	2.512	10.241	45.598	32.877	8.213
Professional service	1,125,366	.689	1.581	9.475	53.821	29.225	5.209	1,725,906	1.081	1.963	10.962	52.265	28.524	5.205
Domestic and personal service	1,214,279	3.333	2.713	9.282	49.710	29.470	5.492	1,769,629	2.490	3.455	10.949	47.847	29.392	5.867
Clerical occupations	1,698,599	10.355	7.606	19.777	44.498	15.559	2.115	2,037,137	4.436	7.087	20.393	47.923	17.620	2.541

	Females							Females						
All groups	8,533,864	11.200	9.401	21.199	40.045	15.848	2.307	10,738,714	6.711	8.776	21.861	42.339	17.834	2.479
Agriculture, forestry, animal husbandry	1,083,030	24.884	6.602	12.076	31.124	20.295	5.019	909,828	21.918	7.470	12.403	28.787	23.408	6.014
Extraction of minerals	2,855	15.762	10.473	17.863	39.404	14.186	2.312	757	12.021	12.549	19.419	35.403	18.098	2.510
Manufacturing and mechanical industries	1,927,688	15.682	11.119	19.856	37.882	14.061	1.400	1,884,458	10.458	11.657	21.051	39.303	15.643	1.888
Transportation and communication	212,832	14.420	18.778	33.220	29.726	3.599	.257	280,970	6.353	14.696	31.625	40.073	6.755	.493
Trade	666,626	10.377	10.162	20.839	43.751	13.760	1.111	961,529	5.188	8.847	18.888	45.454	19.978	1.645
Public service (n. e. c.)[1]	21,736	.639	2.517	13.475	55.659	25.552	2.167	17,548	.383	.547	8.901	51.624	35.001	3.539
Professional service	1,013,582	1.276	6.852	29.482	48.432	12.875	1.083	1,523,508	.608	4.902	27.545	49.199	16.207	1.539
Domestic and personal service	2,181,099	5.780	5.444	13.857	44.587	26.062	4.270	3,175,175	5.204	6.430	15.160	43.536	25.602	4.068
Clerical occupations	1,424,416	10.147	15.421	33.797	36.402	4.025	.208	1,984,941	4.122	12.567	33.493	42.984	6.558	.276

[1] Excludes a negligible number of unknown age.
[2] N. e. c.=Not elsewhere classified.

child group of 1920, on the other hand, was taken 10 years later by the females of 18 to 19 years of age, and the females of 65 and over were in the last place in both years with approximately equal percentages (2 percent).

The following pertinent questions now arise: Given a particular age group, specific for sex, how do the different occupational groups rank with respect to the proportion of their workers in this age group, and are there any changes in order with the passage of time? The questions are asked primarily with regard to the child, middle-, and old-aged groups, respectively; that is, the age groups, 10–17, 45–64, and 65 and over.

Further reference to table 2 is necessary for a study of the questions proposed. The male child group of 1920 engaged in clerical occupations was 10 percent of the total number of males so employed. No other occupational group furnished a corresponding percentage so large. The female child group for the same year showed approximately the same percentage, which was, however, lower than the corresponding percentages yielded by 5 other occupational groups; the highest percentage (25 percent) was associated with agriculture, forestry, and animal husbandry. The year 1930 showed similar decreases for both males and females in the child group of the clerically employed. In both instances the decrease was from 10 percent in 1920 to approximately 4 percent in 1930. In the latter year the male child group clerically engaged was superseded only by agriculture, forestry, and animal husbandry (8 percent); with regard to the female child group, while those engaged in agriculture, forestry, and animal husbandry decreased to 22 percent, the rank of this group of occupations remained unchanged. It will be observed that the number of males and females in the clerical occupations increased during the 10 years, but their proportions, respectively, in the child group were in 1930 less than one-half of the corresponding proportions in 1920. With respect to the boys, all occupational groups, professional service and public service excepted, showed decreases in their proportions at the end of the 10 years. The proportions for the girls, while on a higher level at the beginning of the decade (public service excepted) than those for the boys, were all lower at the end of the decade than at its beginning.

The year 1920 showed the clerically employed males to have 16 percent of their number in the middle-aged group. No other occupational group furnished a corresponding percentage so low; the highest percentages were yielded by domestic and personal service (29.5 percent) and professional service (29.2 percent). The middle-aged female group of clerical workers for the same year was 4 percent of the total females clerically employed, the percentage, as in the instance of the males, being practically the lowest among all occupational groups; the highest percentages were associated with domestic and personal

service (26 percent) and public service (25.5 percent). With the passage of 10 years the percentages for the males and females, respectively, in clerical occupations, while increasing by approximately 2 percent, remained the lowest among all occupational groups. For the males the largest increase, from 22 to 27 percent, was associated with the extraction of minerals. There were slight decreases for trade, professional service, and domestic and personal service. The remaining occupational groups showed slight increases. For the middle-aged females the largest increases are shown for trade, 14 to 20 percent, and for public service, 25.5 to 35 percent. As in the instance of the males there was a slight decrease for domestic and personal service. The remaining occupational groups showed slight increases.

With respect to the age group 65 and over all occupational groups, with the possible exception of females in domestic and personal service, showed slightly higher proportions at the end of the decade than at its beginning. In 1920 extraction of minerals ranked first (7 percent) among the males, public service ranking second (6 percent); in 1930 these two occupational groups interchanged places with proportions that amounted to 8 and 8.2 percent, respectively. Among the females, agriculture, forestry, and animal husbandry ranked first (5 percent) in 1920 with domestic and personal service second (4 percent); in 1930 this order remained unchanged.

RATIO OF OBSERVED PERCENTAGE OF GAINFUL WORKERS IN EACH OCCUPATIONAL GROUP TO EXPECTED PERCENTAGE

It is desirable and, at the same time, illuminating to compare the observed percentages constituting the percentage age distribution of gainful workers, specific for sex, occupational group, and census year, with defined "expected" or "normal" percentages. The percentages of all gainful workers distributed among the various age groups, regardless of occupation but specific for sex and census year, may be assumed to be expected or normal percentages for each occupational group specific for sex and census year. The ratio of an observed percentage to its corresponding expected percentage will disclose whether there is a relatively large, a relatively small, or a normal percentage of workers of a particular occupational group in a specific sex-age group and census year. The expected percentages as defined together with those observed are given in table 2.

Reference to the expected percentages has already been made in the previous section. In table 3 the calculated ratios are shown, and figures 1 and 2, respectively, present the ratios graphically for males and females. The dashed line in each figure drawn through 1.00 indicates the normal or expected level of gainful workers; when the expected percentage of persons in a particular age and occupational group is the same as the percentage of persons actually observed in

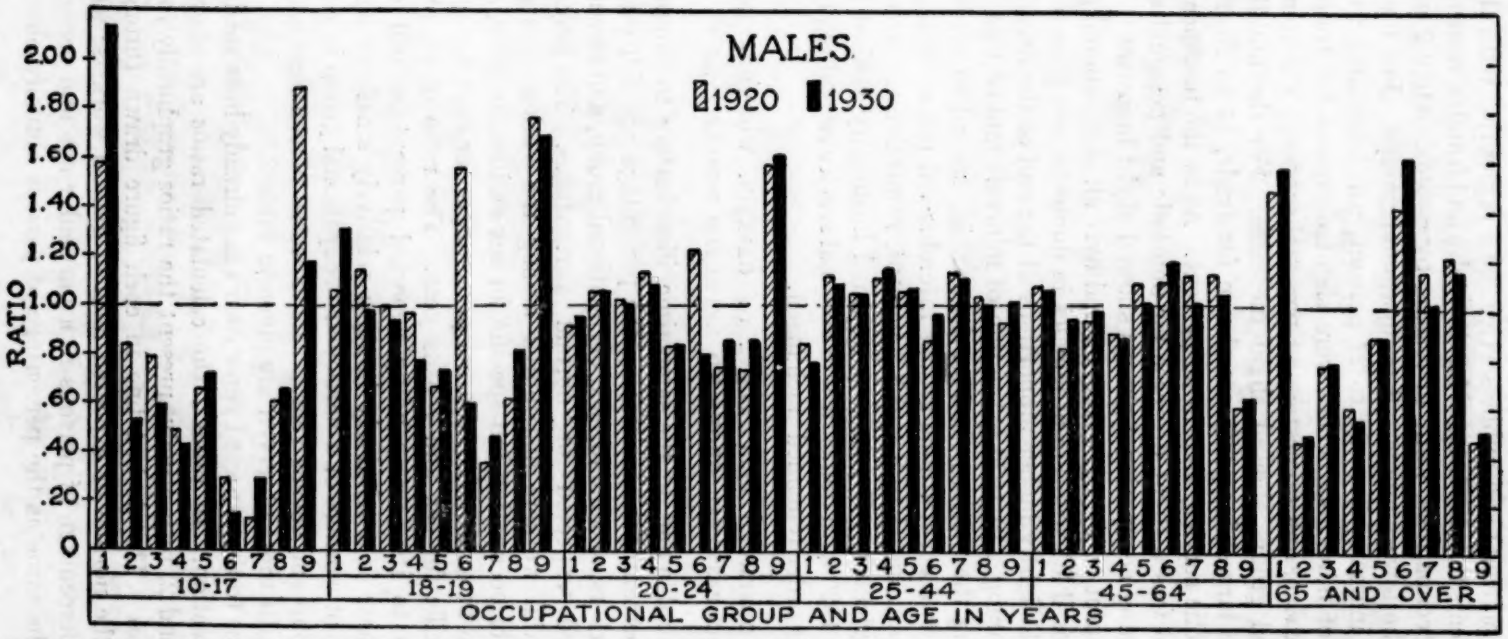

FIGURE 1.—Age-specific ratios of the percentages of gainful male workers in different occupational groups to the percentages for all groups, 1920 and 1930. The numbers 1-9 are defined thus: 1, agriculture, forestry and animal husbandry; 2, extraction of minerals; 3, manufacturing and mechanical industries; 4, transportation and communication; 5, trade; 6, public service (not elsewhere classified); 7, professional service; 8, domestic and personal service; and 9, clerical occupations.

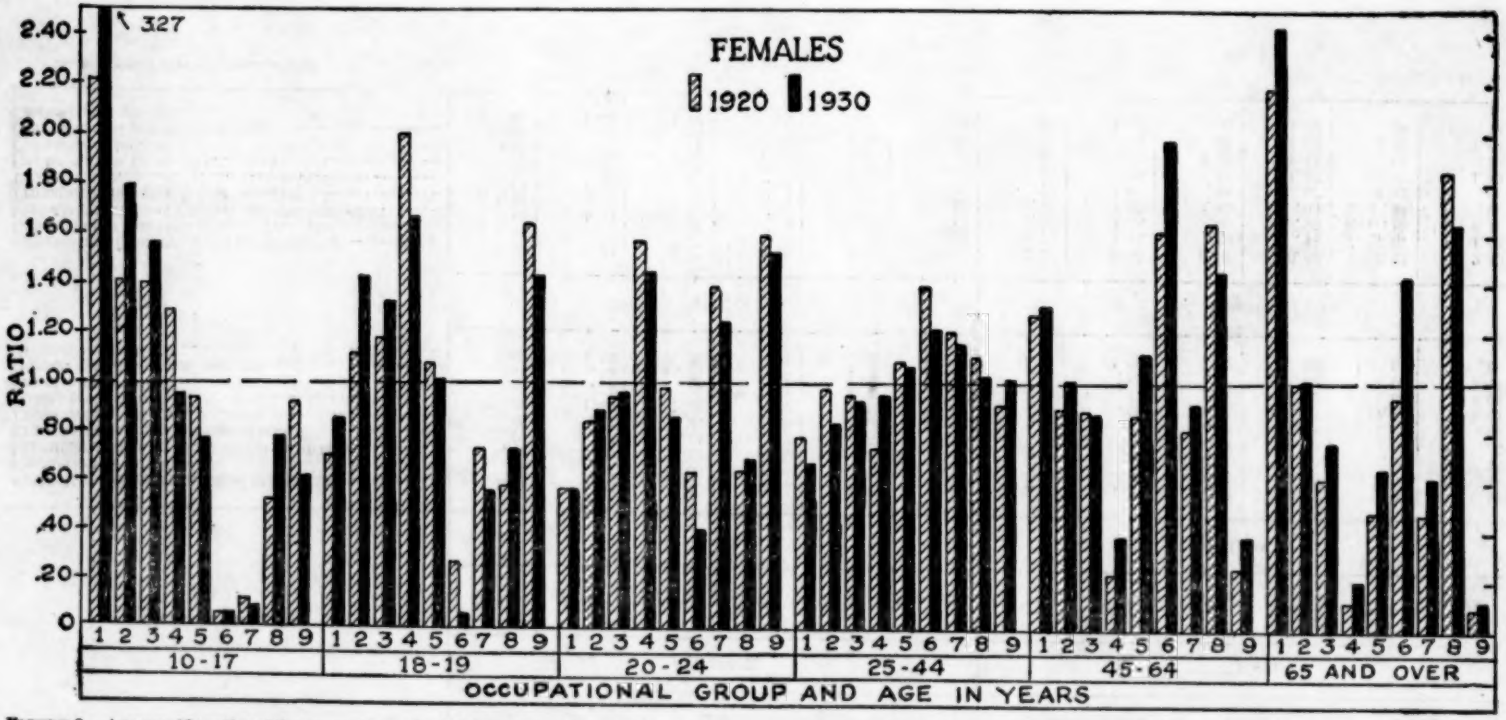

FIGURE 2.—Age-specific ratios of the percentages of gainful female workers in different occupational groups to the percentages for all groups, 1920 and 1930. The numbers 1-9 are defined thus: 1, agriculture, forestry and animal husbandry; 2, extraction of minerals; 3, manufacturing and mechanical industries; 4, transportation and communication; 5, trade; 6, public service (not elsewhere classified); 7, professional service; 8, domestic and personal service; and 9, clerical occupations.

TABLE 3.—*Ratio by sex and age, of percentage of gainful workers in a specified occupational group to the percentage for all groups, 1920 and 1930 (percentages shown in table 2)*

Occupational group	1920						1930					
	Age group						Age group					
	10–17	18–19	20–24	25–44	45–64	65 and over	10–17	18–19	20–24	25–44	45–64	65 and over
	Males						Males					
Agriculture, forestry, animal husbandry	1.58	1.06	0.92	0.85	1.09	1.48	2.13	1.31	0.96	0.78	1.08	57
Extraction of minerals	.84	1.14	1.06	1.13	.84	.46	.53	.98	1.06	1.10	.96	.49
Manufacturing and mechanical industries	.79	1.00	1.03	1.06	.95	.77	.59	.94	1.01	1.06	.99	.78
Transportation and communication	.49	.97	1.14	1.12	.99	.60	.43	.78	1.09	1.16	.89	.55
Trade	.66	.67	.84	1.07	1.10	.89	.72	.74	.85	1.08	1.03	.89
Public service (n. e. c.) [1]	.29	1.56	1.23	.87	1.11	1.41	.15	.60	.81	.98	1.19	1.61
Professional service	.13	.36	.76	1.14	1.13	1.15	.29	.47	.87	1.12	1.03	1.02
Domestic and personal service	.61	.62	.74	1.05	1.14	1.21	.66	.82	.87	1.02	1.06	1.15
Clerical occupations	1.88	1.76	1.58	.94	.60	.47	1.18	1.69	1.62	1.03	.64	.50
	Females						Females					
Agriculture, forestry, animal husbandry	2.22	0.70	0.57	0.78	1.28	2.18	3.27	0.85	0.57	0.68	1.31	2.43
Extraction of minerals	1.41	1.11	.84	.98	.90	1.00	1.79	1.43	.89	.84	1.01	1.01
Manufacturing and mechanical industries	1.40	1.18	.94	.95	.89	.61	1.56	1.33	.96	.93	.88	.76
Transportation and communication	1.29	2.00	1.57	.74	.23	.11	.95	1.67	1.45	.95	.38	.20
Trade	.93	1.08	.98	1.09	.87	.48	.77	1.01	.86	1.07	1.12	.66
Public service (n. e. c.) [1]	.06	.27	.64	1.39	1.61	.94	.06	.06	.41	1.22	1.97	1.43
Professional service	.11	.73	1.39	1.21	.81	.47	.09	.56	1.25	1.16	.92	.62
Domestic and personal service	.52	.58	.65	1.11	1.64	1.85	.78	.73	.69	1.03	1.45	1.64
Clerical occupations	.91	1.64	1.59	.91	.25	.09	.61	1.43	1.53	1.02	.38	.11

[1] N. e. c.=not elsewhere classified.

that particular group, the bar representing this fact will reach the dashed line. Obviously when the height of a bar is below (or above) the normal level the percentage of persons for the age group and group of occupations represented by the bar is less (or greater) than the percentage expected.

Variability of the ratios in the different age groups.—The first question that logically arises is: How do the number of gainful workers of different occupational groups approach the normal level in the various age groups; in other words, are there some age groups that are characteristically normal, above or below normal with respect to the number of gainful workers in the different occupational groups? The investigation of this question will obviously throw light on an important matter, namely, whether there is with respect to occupational group a dearth of workers in the middle-aged and old-aged groups, and whether there is an excess in the child group. An inspection of figures 1 and 2 immediately reveals that with respect to normality the age groups are by no means similar, and that the greater variability is shown by the females. The occupational groups for the age group 25–44 approach normality most consistently; this holds for females as well as for males, and for both census years. For the males the greatest variability appears to occur in the age group 10–17, followed in order by 65 and over, and 18–19; for the females the picture is remarkably different, considerable variability being found in all of the age groups with the exception of 25–44.

Age changes in the ratios.—For the males of the child group, 10–17 years, agriculture, forestry, and animal husbandry, and clerical occupations show an excess of gainful workers. In 1930 the former occupational group (agriculture, forestry, and animal husbandry) contained more than twice as many boys as expected and showed at the same time an increase over 1920; the clerical contained almost one-fifth more than the expected number but decreased since 1920. In both census years agriculture, forestry, and animal husbandry continued above normal in the age group 18–19, decreased below normal in the subsequent age groups, rose above normal in the middle-aged group, and increased to a high level above normal in the age group 65 and over. Clerical occupations continued above normal, decreased approximately to normal at 25–44, and fell approximately to 60 and 50 percent of normal, respectively, in the middle- and old-aged groups. Other occupational groups than clerical in the old-aged group showing fewer persons than expected are extraction of minerals, manufacturing and mechanical industries, transportation and communication, and trade, the differences as between 1920 and 1930 being small. An occupational group in the old-aged group remarkably above normal is public service; in no other male age group does this particular group of occupations reach a level so high.

Consider now the material for the females which is shown graphically in figure 2. The child group contrasts notably with the corresponding male group. The female child group shows the clerical occupations below normal, and the agriculture, forestry, and animal husbandry group considerably above normal. In fact in the latter group of occupations there were in 1930 over 3 times as many girls as expected. Furthermore, for both census years there are 2 other occupational groups, extraction of minerals, and manufacturing and mechanical industries, in the female child group that show percentages above normal; in 1920 the occupations connected with transportation and communication were above normal, but in 1930 they show a decrease below normal. Transportation and communication for both years rises abruptly far above normal in the age group 18–19; indeed this level is never reached in any of the subsequent age groups. On the other hand, these occupations are below normal for males of 18–19 years of age. While the professional service group is below normal for males of 20–24, it is about 30 percent greater than the expected number for females of the same age group. As in the instance of the middle-aged males in clerical occupations, the females of the same age and occupational group are below the expected number, the latter being on a still lower level. Transportation and communication also shows an unusually low level with respect to the middle-aged females. Public service, and domestic and personal service are on high levels, and particularly so when compared with the males. These two occupational groups continue to show high levels for the females of 65 and over, public service increasing remarkably from below normal to almost 50 percent above normal in 10 years. Agriculture, forestry, and animal husbandry show the greatest excess in the old-age group, the observed percentage of workers being well over twice the expected percentage in both census years.

SUMMARY

This paper deals with the age of gainful male and female workers of the United States in different occupational groups for the census years 1920 and 1930. The various occupational groups with the workers specific for sex, age, and census year are compared.

The percentage age distribution for each occupational group is compared with the percentage age distribution of all gainful workers regardless of occupation by forming the ratio of corresponding percentages. This ratio is equivalent to the ratio of an observed percentage to its corresponding "expected" or "normal" percentage, and depending upon whether the ratio is 1, less than 1, or greater than 1, indicates whether the number of workers in a particular occupational group is normal, abnormally low, or abnormally high; when the ratio differs from 1, its size indicates the order of magnitude of the abnormal-

lty. As a consequence of this definition of normality, the following findings, among others, may be briefly enumerated:

1. The ratios for the females are more variable than those for the males in both census years.

2. The variability of the ratios changes in both sexes with increases in age. The age group 25–44 years is least variable for both males and females in both census years.

3. With respect to the males, the child group, 10–17 years, shows agriculture, forestry and animal husbandry, and clerical occupations to have percentages of gainful workers greater than the expected percentages. The middle-aged group, 45–64 years, shows a dearth of workers principally in the clerical occupations. The old-aged group, 65 years and over, shows a dearth of workers in the following occupational groups: Extraction of minerals, manufacturing and mechanical industries, transportation and communication, trade, and clerical occupations. There is a notable excess in agriculture, forestry and animal husbandry, and public service. These observations hold for both census years.

4. With respect to the females, the child group shows excesses in agriculture, forestry and animal husbandry, extraction of minerals, manufacturing and mechanical industries, and transportation and communication (1920 only). The middle-aged group shows a dearth of workers principally in manufacturing and mechanical industries, transportation and communication, professional service, and clerical occupations. There are notable excesses in agriculture, forestry and animal husbandry, public service, and domestic and personal service. The old-aged group shows a dearth of workers in manufacturing and mechanical industries, transportation and communication, trade, professional service, and clerical occupations. There are striking excesses in agriculture, forestry and animal husbandry, public service (1930 only), and domestic and personal service. With the exceptions noted, these observations hold for both census years.

REFERENCE

(1) U. S. Department of Commerce, Bureau of the Census: (1933) Fifteenth Census of the United States, 1930. Population, v. 5, General Report on Occupations. Government Printing Office, Washington, D. C. P. 114.

IXODES RICINUS CALIFORNICUS (BANKS) A POSSIBLE VECTOR OF *BACTERIUM TULARENSE*[1]

By Gordon E. Davis, *Bacteriologist*, and Glen M. Kohls, *Assistant Entomologist*, *United States Public Health Service*

On April 18, 1936, two adult *Ixodes ricinus californicus* (*1*) were recovered near Grants Pass, Oreg., from a recently dead jack rabbit (*Lepus californicus californicus*). The rabbit's spleen was approxi-

[1] Contribution from the Rocky Mountain Laboratory, U. S. Public Health Service, Hamilton, Mont.

mately 4 inches long by 1 inch wide and showed numerous necrotic foci, suggesting a tularaemic infection.

On April 22 the ticks were placed in a feeding capsule on a guinea pig. One attached immediately; the other died within 24 hours. The guinea pig's temperature was normal for 8 days, rose to 39.8° C. on the 9th day and 40.4°, 40.4°, 40.0°, 40.2°, respectively, on the following 4 days. On the fourteenth day it was killed for autopsy. The spleen was approximately normal in size. There were a few small abscesses in both spleen and liver.

Transfers were made by a suspension of spleen tissue and by testicular washings. The two guinea pigs receiving the latter died, following a febrile period, on the twentieth and twenty-fifth days, respectively. One showed a spleen enlarged approximately five times, studded with necrotic foci. There was also a focal necrosis of the liver and peritoneal wall with excess fluid in the abdominal cavity. The other showed a spleen slightly enlarged with focal necrosis in both spleen and liver. One of the two guinea pigs receiving spleen tissue died on the twentieth day, also showing lesions typical of tularaemia, including enlarged and caseated inguinal nodes. The other was killed on the fourteenth day. The spleen was slightly enlarged and showed pinpoint necrotic foci. The omentum major was caseated.

Transfers, by cutaneous vaccination with spleen tissue, were again made from one of each of the above pairs of guinea pigs. Blood taken on the seventh day from one of these second transfer guinea pigs yielded a pure culture of *Bacterium tularense*.

The following facts suggest that *I. ricinus californicus* may be a carrier of tularaemia to human beings: (1) It infests species of rodents known to be commonly infected in nature; (2) naturally infected adults have been found in nature; and (3) the adults frequently bite man.

REFERENCE

(*1*) Kohls, Glen M., and Cooley, R. A.: North American records of the tick *Ixodes ricinus californicus* (Banks). (The following article.—Ed.)

NORTH AMERICAN RECORDS OF THE TICK *IXODES RICINUS CALIFORNICUS* (BANKS) [1]

By GLEN M. KOHLS, *Assistant Entomologist*, and R. A. COOLEY, *Entomologist*, *United States Public Health Service*

With the recent finding of *Ixodes ricinus californicus* naturally infected with *Bacterium tularense* in Oregon by Davis and Kohls (*1*) it seems desirable to summarize host and locality data of this common tick of the Pacific Coast region. In this note there are assembled all

[1] Contribution from the Rocky Mountain Laboratory, U. S. Public Health Service, Hamilton, Mont.

of the known published records of this tick, together with new records that have been obtained by this laboratory.

Banks (*2*) records specimens from California as follows: Claremont, Santa Clara County, Santa Cruz Mountains, and Redwood Creek, Humboldt County. The hosts were gray fox and black-tail deer. Neumann (*3*) records this species on a bird, *Toxostoma crissalis* Wagl.; locality, California. Clarke (*4*) lists it as a parasite of black-tail deer, and Boynton (*5*) notes its occurrence on the southern black-tail, *Odocoileus columbianus scaphiotus*, and the Rocky Mountain mule-tail deer, *O. hemionus hemionus*. Jellison (*6*) states that "the adult tick is a serious pest of deer, livestock, and dogs and frequently bites man * * *". The same paper records the finding of an engorged nymph on a dog in Santa Clara County, larvae and nymphs on alligator lizards, *Gerrhonotus scincicauda scincicauda*, in San Luis Obispo County, on *Gerrhonotus coeruleus* in Humboldt County, and on blue-bellied lizards, *Sceloporus occidentalis occidentalis*, in Monterey County, San Benito County, and San Luis Obispo County, all in California. Finally, Gregson (*7*) reports it from Vancouver Island and the coast of British Columbia. The lizard *Gerrhonotus multicarinatus* Blainville was found to be a host of the immature stages.

As a result of field studies conducted by members of the staff of the Rocky Mountain Laboratory, it is possible to add several new host species, representative records of which follow:

Hosts of adult stage.—Jack rabbit, *Lepus californicus californicus*, Grants Pass, Oreg.; brush rabbit, *Sylvilagus bachmani*, Corvallis, Oreg.; cougar, *Felis oregonensis*, Roseburg, Oreg. (R. E. Dimick); domestic cat, Gasquet, Calif.; horse, Orcas Island, Wash.; and coyote, *Canis* sp., Grants Pass, Oreg.

Hosts of immature stages.—Jack rabbit, *Lepus californicus californicus*, Grants Pass and Corvallis, Oreg. (larvae and nymphs); ground squirrel, *Citellus douglasii*, Grants Pass, Oreg. (nymphs); mouse (probably *Mus musculus*), Grants Pass, Oreg. (larvae); and *Citellus* sp., Redding, Calif. (nymph).

Distribution.—The writers have collected adults by dragging as far south as San Juan Hot Springs, San Diego County, Calif. Undoubtedly the species extends south into Lower California. The most inland record is Bass Lake, Madera County, Calif. (Jellison (*6*)). Gregson (*7*) gives as the most northerly point of collection Campbell River, 30 miles north of Courtenay, Vancouver Island. Judging from the paucity of records of its collection in Washington and northern Oregon, the species is probably sparsely distributed in that section of the Pacific coast region.

Seasonal occurrence.—The adults are most abundant during the winter and early spring months. We have an engorged female collected in January from a dog at Duncan, B. C. Jellison, in California,

during March and April found adults on vegetation in considerable numbers and also infesting dogs, horses, and man. The present writers found that the number of adults that could be collected from vegetation in California declined with the advance of spring, and during the summer months adults were practically absent. However, we have records from a coyote, Grants Pass, Oreg., August 15, 1935 (1 specimen), and from a black-tail deer, Green Mountain, Oreg., October 18, 1935 (1 specimen).

As to the seasonal occurrence of the immature stages the data are even more fragmentary. Jellison found them infesting lizards in numbers during March and April 1932, in California. Many larvae and nymphs were found on 2 jack rabbits from Grants Pass, Oreg., April 17, 1936. Two ground squirrels, *Citellus douglasii*, from the same area, examined July 17 and September 18, 1935, respectively, were each infested with a single nymph. Gregson states that only 1 of 59 lizards, *G. multicarinatus*, from West Vancouver, examined October 4 was infested by a tick. Thus it seems likely that the seasonal occurrence of immature stages on host animals coincides more or less with that of adults.

REFERENCES

(*1*) Davis, Gordon E., and Kohls, Glen M.: *Ixodes ricinus californicus* (Banks) a possible vector of *Bacterium tularense*. (Preceding Article.—Ed.)
(*2*) Banks, Nathan: A revision of the Ixodoidae, or ticks, of the United States. U. S. Dept. of Agri. Bur. of Ent. Tech. Ser. 15, p. 24 (1908).
(*3*) Neumann, L. G.: Ixodidae, p. 27 (1911).
(*4*) Clarke, F. C.: Parasites of the black-tail deer. Thesis. Univ. of California Library (May 1912).
(*5*) Boynton, W. H.: Deer as carriers of anaplasmosis. Science, *78:* 559–560 (1933).
(*6*) Jellison, W. L.: The parasitism of lizards by *Ixodes ricinus californicus*. J. Parasitology, *20:* 243 (June 1934).
(*7*) Gregson, J. C.: A preliminary report of the lizard-tick relationship on the coast of British Columbia. Proc. Ent. Soc. B. C. No. 31, pp. 17–21 (February 1935).

DEATHS DURING WEEK ENDED FEBRUARY 13, 1937

(From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

	Week ended Feb. 13, 1937	Corresponding week, 1936
Data from 85 large cities of the United States:		
Total deaths	10,452	10,317
Average for 3 prior years	9,189	
Total deaths, first 6 weeks of year	64,370	57,047
Deaths under 1 year of age	616	638
Average for 3 prior years	593	
Deaths under 1 year of age, first 6 weeks of year	3,847	3,400
Data from industrial insurance companies:		
Policies in force	69,161,259	67,901,211
Number of death claims	13,490	11,894
Death claims per 1,000 policies in force, annual rate	10.2	9.2
Death claims per 1,000 policies, first 6 weeks of year, annual rate	11.5	10.7

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended February 20, 1937, and February 22, 1936

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 20, 1937, and Feb. 22, 1936

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936
New England States:								
Maine	----	4	512	1	5	272	0	1
New Hampshire	----	----	----	----	20	24	0	0
Vermont	----	----	----	----	2	370	0	0
Massachusetts	8	11	----	----	833	357	6	3
Rhode Island	1	----	14	----	205	32	1	2
Connecticut	5	----	354	4	568	78	1	4
Middle Atlantic States:								
New York	51	37	[1] 74	[1] 92	402	1,810	18	20
New Jersey	6	12	110	11	1,251	100	7	3
Pennsylvania	46	34	----	----	204	616	9	4
East North Central States:								
Ohio	20	29	270	70	54	108	9	8
Indiana	6	20	220	34	12	11	3	2
Illinois	31	31	131	64	26	29	8	13
Michigan	32	13	12	4	56	50	4	2
Wisconsin	1	1	308	58	14	137	0	3
West North Central States:								
Minnesota	3	1	4	1	18	168	3	0
Iowa	5	11	64	5	4	8	2	3
Missouri	12	23	1,565	462	9	25	2	3
North Dakota	2	----	41	10	2	----	1	1
South Dakota	1	2	11	----	2	1	3	0
Nebraska	----	6	15	----	1	40	1	3
Kansas	8	16	240	22	6	16	1	2
South Atlantic States:								
Delaware	----	----	8	----	129	78	1	0
Maryland [2]	13	5	389	34	412	136	5	14
District of Columbia	5	21	27	3	----	8	2	4
Virginia	15	14	----	----	188	70	9	33
West Virginia	12	9	725	131	3	11	9	5
North Carolina	29	23	93	311	55	89	1	5
South Carolina [3]	4	2	1,116	1,272	12	17	1	10
Georgia [3]	13	9	1,189	1,058	----	----	3	4
Florida [3]	11	2	36	51	8	1	2	2
East South Central States:								
Kentucky	9	9	521	104	70	154	24	9
Tennessee	22	12	750	246	21	202	6	8
Alabama [3]	14	14	1,154	1,189	2	11	6	2
Mississippi [3]	3	1	----	----	----	----	0	1

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 20, 1937, and Feb. 22, 1936—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936
West South Central States:								
Arkansas	6	6	798	233	3	----	3	2
Louisiana	13	14	375	24	1	70	1	5
Oklahoma [4]	8	5	1,018	227	6	1	5	9
Texas [5]	56	56	4,284	751	522	174	8	17
Mountain States:								
Montana	----	----	276	57	----	30	2	1
Idaho	----	2	9	2	29	44	1	0
Wyoming	----	----	1	----	1	4	0	4
Colorado	4	5	----	----	1	14	0	1
New Mexico	2	3	287	6	63	9	2	0
Arizona	2	2	401	215	208	46	2	0
Utah [3]	2	----	----	----	11	10	0	0
Pacific States:								
Washington	1	3	51	----	12	236	1	2
Oregon	----	1	352	148	12	642	0	1
California	30	37	4,126	5,030	83	1,817	11	7
Total	512	506	21,931	11,870	5,546	8,126	184	223
First 7 weeks of year	4,059	4,670	189,832	36,664	31,676	44,460	1,041	1,338

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936
New England States:								
Maine	0	0	23	24	0	0	0	1
New Hampshire	0	0	6	16	0	0	0	0
Vermont	0	0	11	16	0	0	0	0
Massachusetts	0	1	252	241	0	0	2	1
Rhode Island	0	0	58	17	0	0	1	0
Connecticut	0	0	105	78	0	0	1	0
Middle Atlantic States:								
New York	0	0	1,107	858	0	0	6	5
New Jersey	0	1	204	296	0	0	2	3
Pennsylvania	1	1	834	511	0	0	4	3
East North Central States:								
Ohio	0	0	212	280	1	1	1	2
Indiana	1	0	165	358	2	1	1	1
Illinois	0	1	657	706	40	6	6	4
Michigan	2	0	785	313	0	0	2	3
Wisconsin	0	0	320	573	5	12	0	1
West North Central States:								
Minnesota	1	0	199	273	8	16	0	1
Iowa	0	0	288	178	29	5	0	5
Missouri	0	0	301	215	70	5	1	1
North Dakota	0	0	59	64	6	10	2	0
South Dakota	0	0	69	68	3	23	0	0
Nebraska	0	0	112	150	3	42	0	0
Kansas	0	0	279	325	20	7	0	0
South Atlantic States:								
Delaware	0	0	18	6	0	0	3	0
Maryland [3]	0	1	42	78	0	0	1	2
District of Columbia	0	0	23	20	0	0	1	0
Virginia	1	0	16	38	0	0	2	2
West Virginia	1	0	57	38	3	0	1	1
North Carolina	0	0	42	24	0	1	1	1
South Carolina [3]	0	0	3	4	0	0	5	1
Georgia [3]	1	0	7	25	0	1	3	2
Florida [3]	0	0	8	4	0	0	2	1

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 20, 1937, and Feb. 22, 1936—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936	Week ended Feb. 20, 1937	Week ended Feb. 22, 1936
East South Central States:								
Kentucky	2	1	43	63	0	0	11	6
Tennessee	0	0	28	27	0	0	7	2
Alabama [3]	0	0	13	27	0	1	3	0
Mississippi [2]	0	0	7	16	1	0	4	1
West South Central States:								
Arkansas	3	0	10	17	4	0	0	4
Louisiana	1	0	8	15	0	3	5	3
Oklahoma [4]	1	1	31	31	1	0	2	3
Texas [3]	3	0	108	133	2	2	10	4
Mountain States:								
Montana	0	0	51	124	11	11	1	1
Idaho	1	0	32	88	4	5	4	0
Wyoming	0	0	11	83	0	10	0	0
Colorado	0	0	34	130	7	5	0	1
New Mexico	0	0	40	43	3	0	3	0
Arizona	0	0	30	28	0	0	2	0
Utah [2]	0	0	14	111	0	0	0	0
Pacific States:								
Washington	0	0	52	91	2	27	1	0
Oregon	0	0	41	59	19	1	2	4
California	0	1	252	368	9	1	2	9
Total	19	8	7,067	7,251	253	196	105	79
First 7 weeks of year	164	124	43,529	51,351	2,081	1,455	795	698

[1] New York City only.
[2] Week ended earlier than Saturday.
[3] Typhus fever, week ended Feb. 20, 1937, 12 cases, as follows: South Carolina, 1; Georgia, 4; Florida, 5; Alabama, 1; Texas, 1.
[4] Exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week:

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
January 1937										
Georgia	14	71	1,719	442	27	27	8	93	5	19
Idaho	4	6	1,356	----	390	----	1	129	49	3
Indiana	14	103	1,579	----	48	----	0	909	33	5
Iowa	4	15	8,136	1	17	----	1	621	92	3
Louisiana	7	51	780	29	137	4	5	56	2	28
Maine	2	6	645	----	345	----	0	94	0	29
Maryland	29	57	1,179	----	1,152	----	0	341	0	5
Michigan	11	69	400	4	184	----	4	2,515	----	7
Minnesota	6	32	135	----	135	----	4	653	62	4
New Jersey	17	55	895	1	1,839	----	2	634	0	6
Nevada	1	----	614	----	----	----	1	40	0	0
Ohio	36	167	1,511	----	247	----	10	1,601	36	17
Oregon	2	3	5,928	----	42	----	4	178	85	3
Pennsylvania	25	197	----	1	395	----	2	2,388	0	40
South Dakota	4	3	1,285	----	14	----	2	359	44	1

Summary of monthly reports from States—Continued

January 1937

	Cases
Actinomycosis:	
Minnesota	1
Anthrax:	
Pennsylvania	1
Chicken pox:	
Georgia	319
Idaho	236
Indiana	545
Iowa	283
Louisiana	34
Maine	535
Maryland	732
Michigan	2,597
Minnesota	748
New Jersey	2,032
Nevada	28
Ohio	2,648
Oregon	235
Pennsylvania	5,082
South Dakota	104
Conjunctivitis:	
Georgia	3
Idaho	3
Maryland	1
Dengue:	
Georgia	6
Diarrhea:	
Maryland	5
Ohio (under 2 years; enteritis included)	10
Dysentery:	
Georgia (amoebic)	18
Georgia (bacillary)	6
Louisiana (amoebic)	13
Louisiana (bacillary)	2
Maryland	5
Michigan (bacillary)	2
Minnesota (amoebic)	2
Minnesota (bacillary)	1
New Jersey (amoebic)	1
Ohio (bacillary)	1
Oregon (amoebic)	2
Pennsylvania (amoebic)	1
Encephalitis, epidemic or lethargic:	
Iowa	1
Michigan	1
New Jersey	2
Oregon	1
Pennsylvania	1
German measles:	
Idaho	10
Iowa	3
Maine	18
Maryland	38
Michigan	119
New Jersey	101

January 1937—Continued

	Cases
German measles—Contd.	
Ohio	26
Pennsylvania	65
Hookworm:	
Georgia	1,236
Louisiana	10
Impetigo contagiosa:	
Maryland	7
Oregon	38
Jaundice, infectious:	
Oregon	1
Lead poisoning:	
Michigan	10
Ohio	8
Mumps:	
Georgia	223
Idaho	46
Indiana	117
Iowa	149
Louisiana	35
Maine	806
Maryland	849
Michigan	1,488
New Jersey	861
Ohio	269
Oregon	86
Pennsylvania	1,630
South Dakota	5
Opthalmia neonatorum:	
Maryland	1
New Jersey	9
Ohio	54
Pennsylvania	1
Paratyphoid fever:	
Louisiana	1
New Jersey	1
Puerperal septicemia:	
Georgia	2
Ohio	4
Rabies in animals:	
Indiana	48
Louisiana	22
Maine	1
Michigan	4
New Jersey	5
Scabies:	
Oregon	49
Septic sore throat:	
Georgia	84
Idaho	4
Iowa	1
Louisiana	2
Maine	5
Maryland	32
Michigan	72
Minnesota	6
Ohio	139
Oregon	10

January 1937—Continued

	Cases
Tetanus:	
Georgia	1
Maryland	3
New Jersey	1
Trachoma:	
Michigan	2
South Dakota	8
Trichinosis:	
Maryland	2
Michigan	60
New Jersey	2
Ohio	1
Tularaemia:	
Georgia	8
Louisiana	5
Maryland	7
Michigan	9
Minnesota	1
New Jersey	1
Ohio	21
Oregon	1
Pennsylvania	1
Typhus fever:	
Georgia	83
Undulant fever:	
Georgia	5
Iowa	6
Louisiana	1
Maine	1
Maryland	1
Michigan	6
Minnesota	2
New Jersey	7
Ohio	13
Pennsylvania	5
Vincent's infection:	
Maine	8
Maryland	15
Michigan	13
Oregon	13
Whooping cough:	
Georgia	134
Idaho	41
Indiana	199
Iowa	72
Louisiana	52
Maine	253
Maryland	622
Michigan	1,362
Minnesota	238
New Jersey	649
Nevada	5
Ohio	1,371
Oregon	179
Pennsylvania	2,511
South Dakota	8

WEEKLY REPORTS FROM CITIES

City reports for week ended Feb. 13, 1937

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Maine:											
Portland	0	8	0	0	9	5	0	0	0	3	24
New Hampshire:											
Concord	0	------	6	0	1	0	0	1	0	0	16
Manchester	0	------	0	0	0	0	0	0	0	0	18
Nashua	0	------	--------	0	-------	0	0	-------	0	0	--------
Vermont:											
Barre	0	------	0	1	0	1	0	0	0	2	1
Burlington	0	------	0	0	0	3	0	0	0	0	12
Rutland	0	------	0	1	1	0	0	1	0	0	9
Massachusetts:											
Boston	1	------	4	11	48	48	0	7	0	160	328
Fall River	0	------	4	63	5	2	0	0	0	4	31
Springfield	0	------	0	53	2	4	0	1	0	16	48
Worcester	0	------	0	142	17	3	0	1	1	35	75
Rhode Island:											
Pawtucket	0	4	0	19	0	1	0	0	0	0	26
Providence	0	18	9	134	18	41	0	3	0	14	113
Connecticut:											
Bridgeport	0	4	0	32	8	16	0	1	0	3	39
Hartford	0	32	1	1	6	14	0	1	0	2	57
New Haven	0	23	2	1	5	2	0	1	0	0	64
New York:											
Buffalo	0	9	5	24	24	23	0	9	0	29	169
New York	27	50	19	54	172	261	0	104	2	37	1,586
Rochester	0	------	5	0	15	1	0	3	0	16	101
Syracuse	0	------	2	20	7	51	0	3	1	14	65
New Jersey:											
Camden	1	6	3	0	5	11	0	0	0	6	38
Newark	0	10	1	284	11	13	0	8	0	22	111
Trenton	1	2	0	0	6	5	0	1	0	3	39
Pennsylvania:											
Philadelphia	7	18	11	3	72	154	0	32	0	84	601
Pittsburgh	3	25	12	9	22	45	0	4	0	31	183
Reading	0	------	1	2	0	10	0	1	0	28	36
Scranton	0	------	--------	0	-------	16	0	-------	0	1	--------
Ohio:											
Cincinnati	7	------	3	34	17	25	0	9	0	17	130
Cleveland	0	229	8	0	61	51	0	17	0	72	286
Columbus	1	7	7	0	15	5	0	1	0	3	89
Toledo	0	5	2	5	13	8	0	6	0	25	94
Indiana:											
Anderson	0	------	0	0	4	7	0	0	0	3	15
Fort Wayne	0	------	1	0	3	5	0	0	0	0	29
Indianapolis	1	------	10	2	26	15	0	8	0	11	133
Muncie	0	17	2	0	1	1	0	0	0	0	14
South Bend	0	------	0	0	5	4	0	0	0	2	26
Terre Haute	0	------	1	0	0	3	0	0	0	1	26
Illinois:											
Alton	0	------	0	1	0	10	0	0	0	1	6
Chicago	12	49	13	20	56	215	0	34	1	102	778
Elgin	1	------	0	0	3	4	0	0	0	8	13
Moline	2	------	0	1	3	1	0	0	0	6	16
Springfield	1	3	1	0	10	2	0	0	0	2	33
Michigan:											
Detroit	14	11	7	7	32	387	0	15	1	57	292
Flint	0	------	2	0	4	19	0	0	1	0	29
Grand Rapids	0	4	2	15	7	19	0	0	0	12	43
Wisconsin:											
Kenosha	0	------	0	0	0	4	0	0	0	1	9
Madison	0	------	0	0	1	3	0	0	0	5	24
Milwaukee	0	------	5	6	16	57	0	4	0	33	112
Racine	0	------	0	1	1	2	0	0	0	0	12
Superior	0	------	0	1	1	3	0	0	0	4	5
Minnesota:											
Duluth	0	------	2	0	3	0	0	0	0	4	26
Minneapolis	1	------	3	1	8	17	0	3	0	10	107
St. Paul	0	4	4	5	6	7	0	0	0	38	57

City reports for week ended Feb. 13, 1937—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Iowa:											
Cedar Rapids	0	----	----	0	----	6	0	----	0	1	----
Davenport	0	----	----	0	----	3	0	----	0	0	----
Des Moines	0	----	----	0	----	27	0	----	0	0	38
Sioux City	0	----	----	1	----	21	0	----	0	0	----
Waterloo	0	----	----	0	----	21	0	----	0	9	----
Missouri:											
Kansas City	0	----	11	0	29	76	0	6	0	5	141
St. Joseph	0	----	0	0	7	12	58	3	0	1	49
St. Louis	9	23	2	1	13	46	0	8	0	71	227
North Dakota:											
Fargo	0	----	0	0	2	6	2	0	0	0	9
Grand Forks	0	----	----	0	----	0	0	----	0	4	----
Minot	0	----	0	0	0	0	0	0	0	0	5
South Dakota:											
Aberdeen	0	----	----	0	----	3	0	----	0	0	----
Sioux Falls	0	----	0	0	0	1	0	0	0	0	7
Nebraska:											
Omaha	0	----	3	1	9	6	0	0	0	5	58
Kansas:											
Lawrence	0	10	----	0	3	0	0	0	0	0	----
Topeka	----	----	----	----	----	----	----	----	----	----	----
Wichita	0	1	1	0	9	7	2	0	0	1	35
Delaware:											
Wilmington	0	----	0	26	6	0	0	0	0	3	35
Maryland:											
Baltimore	5	72	8	307	44	18	0	9	0	85	272
Cumberland	0	1	0	0	2	1	0	1	0	7	11
Frederick	0	----	0	0	1	0	0	0	0	0	5
District of Col.											
Washington	6	53	10	32	39	17	0	8	0	19	207
Virginia:											
Lynchburg	0	----	0	5	3	0	0	0	0	0	12
Norfolk	1	7	2	1	6	3	0	0	0	0	27
Richmond	0	----	2	3	7	4	0	3	0	3	66
Roanoke	1	----	0	44	3	3	0	1	0	2	22
West Virginia:											
Charleston	1	6	1	0	4	3	0	0	0	0	24
Huntington	0	----	----	0	----	0	0	----	0	0	----
Wheeling	0	----	0	0	2	0	0	1	0	2	25
North Carolina:											
Gastonia	0	1	0	0	0	0	0	0	0	0	----
Raleigh	0	----	0	1	3	0	0	1	1	0	19
Wilmington	0	----	0	0	1	0	0	1	0	0	5
Winston-Salem	0	1	0	2	1	1	0	4	0	0	15
South Carolina:											
Charleston	1	184	3	0	3	1	0	1	0	0	27
Columbia	0	----	0	0	4	0	0	0	0	0	29
Florence	0	----	0	0	0	0	0	0	0	0	7
Greenville	1	----	0	0	1	0	0	0	0	0	6
Georgia:											
Atlanta	1	450	9	0	21	7	0	5	0	0	131
Brunswick	0	1	1	0	0	0	0	0	0	0	2
Savannah	0	124	1	0	2	0	0	1	0	6	32
Florida:											
Miami	0	5	0	2	0	2	0	3	0	2	33
Tampa	2	1	1	0	0	0	0	3	1	1	32
Kentucky:											
Ashland	0	----	----	0	----	0	0	----	0	0	0
Covington	0	----	1	0	7	0	0	3	0	0	21
Lexington	0	15	0	5	1	0	0	3	0	5	25
Tennessee:											
Knoxville	2	23	1	3	9	3	0	1	0	0	38
Memphis	3	----	11	4	28	4	0	6	0	14	135
Nashville	1	----	5	0	6	5	0	3	0	2	56
Alabama:											
Birmingham	1	185	2	0	12	6	0	3	0	3	84
Mobile	1	10	2	1	4	1	0	1	0	1	22
Montgomery	0	3	----	0	----	2	0	----	0	0	----
Arkansas:											
Fort Smith	0	----	----	0	----	4	0	----	0	0	----
Little Rock	1	14	0	0	13	2	0	1	0	0	15
Louisiana:											
Lake Charles	0	----	0	1	1	0	0	0	0	0	6
New Orleans	4	89	16	0	16	8	0	11	0	0	172
Shreveport	0	----	1	1	12	3	0	2	0	1	54

City reports for week ended Feb. 13, 1937—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Oklahoma:											
Muskogee	0	------	------	0	------	3	0	------	0	0	------
Oklahoma City	0	42	4	0	17	2	0	2	0	2	62
Tulsa	1	------	------	0	------	7	0	------	0	4	------
Texas:											
Dallas	4	31	13	7	28	19	0	4	2	7	115
Fort Worth	0	------	6	42	6	8	0	0	1	1	46
Galveston	0	------	1	0	5	0	0	0	0	0	21
Houston	2	------	3	0	24	4	0	4	1	3	99
San Antonio	3	1	22	11	15	2	0	10	0	2	95
Montana:											
Billings	0	1	1	0	1	1	0	0	1	0	10
Great Falls	0	------	2	0	1	0	0	0	0	0	8
Helena	0	101	0	4	5	9	0	0	0	0	14
Missoula	0	------	0	0	0	0	0	0	0	0	8
Idaho:											
Boise	0	------	0	2	2	0	0	1	0	3	15
Colorado:											
Colorado Springs	0	------	0	0	2	9	0	1	0	1	8
Denver	2	------	3	3	22	13	0	5	0	41	114
Pueblo	0	------	0	0	1	3	0	0	0	0	6
New Mexico:											
Albuquerque	0	65	1	1	2	4	0	2	0	1	14
Utah:											
Salt Lake City	1	------	4	8	5	10	0	0	0	8	48
Washington:											
Seattle	0	------	11	4	17	4	0	5	0	1	100
Spokane	0	4	4	0	6	1	0	0	0	0	42
Tacoma	0	------	3	0	6	3	0	0	0	1	43
Oregon:											
Portland	0	30	12	2	15	2	3	1	0	7	113
California:											
Los Angeles	8	330	41	14	128	34	3	31	0	66	691
Sacramento	1	414	3	1	18	12	0	4	0	1	63
San Francisco	1	51	9	3	30	14	0	8	0	33	230

State and city	Meningococcus meningitis		Poliomyelitis cases
	Cases	Deaths	
Massachusetts:			
Boston	3	1	1
New York:			
New York	4	2	0
New Jersey:			
Newark	0	1	0
Pennsylvania:			
Philadelphia	1	1	0
Pittsburgh	3	0	0
Reading	1	0	0
Ohio:			
Cincinnati	4	1	0
Indiana:			
Anderson	1	0	0
Illinois:			
Chicago	3	0	0
Michigan:			
Detroit	2	0	0
Missouri:			
Kansas City	1	0	0
St. Joseph	0	1	0
Maryland:			
Baltimore	2	1	0
Virginia:			
Richmond	1	1	0
West Virginia:			
Charleston	1	0	0
Georgia:			
Atlanta	1	0	0
Tennessee:			
Nashville	0	0	1
Alabama:			
Birmingham	1	2	1
Louisiana:			
Shreveport	0	1	0
Oklahoma:			
Tulsa	1	0	0
Texas:			
Houston	0	1	0
Montana:			
Billings	1	1	0
Washington:			
Seattle	1	0	0
Spokane	1	0	0
California:			
Los Angeles	6	7	0
Sacramento	1	0	0
San Francisco	1	1	0

Encephalitis, epidemic or lethargic.—Cases: New York, 1; Newark, 1; Cleveland, 1; Columbus, 1; Kansas City, 2; Baltimore, 1; Denver, 2.
Pellagra.—Cases: Charleston, S. C., 2; Atlanta, 2; Birmingham, 1; Dallas, 1; Los Angeles, 1.
Typhus fever.—Cases: New Haven, 1; Wilmington, N. C., 1; Savannah, 1.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—2 weeks ended January 30, 1937.—During the 2 weeks ended January 30, 1937, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis					1	1				2
Chicken pox		16	3	396	826	116	105	32	144	1,638
Diphtheria	2	17		98	36	6	2		6	167
Dysentery				1	2					3
Erysipelas				19	4	8	2	3	8	44
Influenza	4	19	63		1,140	512	121		2,296	4,155
Leprosy									1	1
Lethargic encephalitis				1						1
Measles		2	177	808	551	114	803	287	1,851	4,593
Mumps			341		590	22	44	15	137	1,149
Pneumonia	4	3			60		9		47	123
Poliomyelitis					3	2	2			7
Scarlet fever		12	11	202	362	133	160	122	53	955
Smallpox								3	1	4
Trachoma						1	2			3
Tuberculosis		29	19	114	87	32	4	3	33	321
Typhoid fever			2	23	5		2		4	36
Undulant fever				2	3					5
Whooping cough	1	16	1	366	201	10	25	4	60	684

CUBA

Provinces—Notifiable diseases—4 weeks ended February 6, 1937.—During the 4 weeks ended February 6, 1937, cases of certain notifiable diseases were reported in the Provinces of Cuba as follows:

Disease	Pinar del Rio	Habana	Matanzas	Santa Clara	Camaguey	Oriente	Total
Cancer	1	2	1	5		4	13
Chicken pox		5	1	9			15
Diphtheria	3	1	4	3		2	13
Leprosy		5	1				6
Malaria	190	42	21	192	135	582	1,162
Measles	34		1			6	41
Poliomyelitis	2						2
Tuberculosis	12	73	15	30	13	37	180
Typhoid fever	10	34	8	40	6	22	120
Yaws						1	1

CZECHOSLOVAKIA

Communicable diseases—December 1936.—During the month of December 1936, certain communicable diseases were reported in Czechoslovakia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax	3		Paratyphoid fever	15	
Cerebrospinal meningitis	5	2	Poliomyelitis	10	
Chicken pox	334		Puerperal septicemia	35	14
Diphtheria	2,865	193	Scarlet fever	2,277	41
Dysentery	10	3	Trachoma	77	
Influenza	11,644	28	Typhoid fever	488	47
Lethargic encephalitis	1	1	Typhus fever	3	1
Malaria	20	1			

YUGOSLAVIA

Communicable diseases—January 1937.—During the month of January 1937 certain communicable diseases were reported in Yugoslavia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax	26	3	Paratyphoid fever	5	1
Cerebrospinal meningitis	24	6	Poliomyelitis	4	2
Diphtheria and croup	767	95	Scarlet fever	330	10
Dysentery	18		Sepsis	12	3
Encephalitis	1		Tetanus	19	9
Erysipelas	255	12	Typhoid fever	300	30
Influenza	600	13	Typhus fever	148	15
Measles	312	4			

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for February 26, 1937, pages 255–267. A similar cumulative table will appear in the PUBLIC HEALTH REPORTS to be issued March 26, 1937, and thereafter, at least for the time being, in the issue published on the last Friday of each month.

Cholera

India (French)—Chandernagor Territory.—During the period December 20, 1936, to January 9, 1937, 13 cases of cholera with 10 deaths were reported in Chandernagor Territory, India (French).

Plague

British East Africa—Tanganyika.—On February 15, 1937, 10 suspected cases of plague with 9 deaths were reported in Tanganyika, British East Africa.

Formosa—Taihoku District.—From December 1 to 10, 1936, one case of plague was reported in Taihoku District, Formosa.

Hawaii Territory—Island of Hawaii—Hamakua District—Paauhau Sector.—A rat found February 20, 1937, in Paauhau Sector, Hamakua District, Island of Hawaii, Hawaii Territory, has been proved plague-infected.

India.—Plague has been reported in India as follows: During the week ended February 6, 1937, one case in Karachi; during the week ended February 13, 1937, five cases in Sind State.

Smallpox

Algeria—Department of Algiers.—From January 11 to 23, 1937, two cases of smallpox were reported in the Department of Algiers, Algeria.

Indochina—Saigon-Cholon.—During the week ended January 9, 1937, two cases of smallpox were reported in Saigon-Cholon, Indochina.

Typhus Fever

Peru.—During the month of November 1936, 60 cases of typhus fever were reported in Peru, by Departments as follows: Apurimac, 3 cases; Arequipa, 10 cases; Ayacucho, 3 cases; Cuzco, 17 cases; Huancavelica, 1 case; Huanuco, 5 cases; Libertad, 9 cases; Puno, 12 cases.

Yellow Fever

Brazil—Matto Grosso State—Maracaju.—On January 13, 1937, one death from yellow fever was reported in Maracaju, Matto Grosso State, Brazil.

French Equatorial Africa—Gabon—Libreville.—On February 8, 1937, a death from suspected yellow fever was reported in Libreville, Gabon, French Equatorial Africa.

Gold Coast—Accra.—On February 4, 1937, one case of yellow fever was reported at Accra, Gold Coast.

Ivory Coast—Bouake.—On January 17, 1937, a doubtful case of yellow fever was reported in Bouake, Ivory Coast. The diagnosis was not confirmed.